

Oil Field Environmental Incident Summary

Incident: 20140520152739 **Date/Time of Notice:** 05/20/2014 15:27

Responsible Party: SAMSON RESOURCES COMPANY

Well Operator: SAMSON RESOURCES COMPANY

Well Name: HAUGLAND 16-21-163-98H

Field Name: BLOOMING PRAIRIE

Well File #: 16302

Date Incident: 5/19/2014 **Time Incident:** 01:45

Facility ID Number:

County: DIVIDE

Twp: 163

Rng: 98

Sec: 16

Qtr:

Location Description:

Submitted By: Cooper Hearne

Received By:

Contact Person: Brad Rogers
2 W 2ND ST SAMSON PLAZA
TULSA, OK 74103-3101

General Land Use: Well/Facility Site

Affected Medium: Well/Facility Soil

Distance Nearest Occupied Building:

Distance Nearest Water Well:

Type of Incident: Tank Overflow

Release Contained in Dike: No

Reported to NRC: No

	Spilled	Units	Recovered	Units	Followup	Units
Oil	140	Barrels	65	Barrels	65	barrels
Brine	100	Barrels	90	Barrels	90	barrels

Other

Description of Other Released Contaminant:

Inspected: **Written Report Received:** 11/17/2016 **Clean Up Concluded:** 5/30/2014

Risk Evaluation:

There is no immediate risk.

Areal Extent:

80ft by 45ft

Potential Environmental Impacts:

There is potential for salt water impacted soils. Samson will continue to observe spill area for signs of distressed vegetation.

Action Taken or Planned:

Had trucks suck up all water and oil put back through battery, contacted State and land owner, layed down aborbent rags and booms, fixed containment, sealed around the bottom with cement.

Wastes Disposal Location: Waste will be disposed of in an approved E&P disposal facility.

Agencies Involved:**Updates**

Date: 5/20/2014 **Status:** Inspection

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 1:00 p.m. Observed oil staining on the east side of the oil pad in farmer's field and tree row; around 85x50 feet in area. Talked to cleanup personnel on site. They were removing product from within the fenced area of the oil pad at time of inspection. Soaker pads and absorbent rolls were in field where work had already occurred. All free-flowing product has been vac trucked and removed from site. Soil and some vegetation was impacted off site and will need to be remediated. More followup will be needed on site.

Date: 5/20/2014 **Status:** Reviewed - Follow-up Required

Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

According to the incident summary, this spill impacted areas off of location. North Dakota Department of Health inspector was at the location on 5/20/14.

Date: 6/4/2014 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

6/4/14 - 16:30 on location.

Took photos of the cleanup progress in the impact area. Met with landowner; no Samson cleanup workers on site. Landowner stated that stormwater in the excavated area was pumped out on 6/3/14. Sample of stormwater this date showed 1,472 mg/L on chloride titration strips. Electrical conductivity readings in soil from 3-18" depth along the edge of the trees ranged from 6 to 27 mS/cm. Additional excavation and remediation are necessary to protect shallow groundwater and possibly landowner's well, although well's vulnerability has not yet been determined.

Date: 6/5/2014 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Talked to Samson representative; he informed the NDDoH that Samson had taken soil samples on 6/3/2014, and they are awaiting test results to see if additional remediation needs to be done. The company has removed about 6" to 1 foot of soil so far in the field and has sent the waste to a landfill. Results of lab test will tell Samson how much more soil needs to be removed. In addition, they have people check the site twice a day and pump any rain water out of the low areas and dispose of it into the tanks on site. In the tree row they removed some low-hanging branches were impacted with oil residue. The company is assessing the issue of the impacted trees. The NDDoH recognizes that more remediation will be necessary depending on test results.

Date: 7/28/2014 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

On July 28th, a representative with Samson Resources Company contacted me with the following questions.

1. At what level of soil conductivity and chloride is the site considered to be remediated?
2. What is the Department looking for from the Company for closure of the site?

The Company rep also provided me with information that the lowest reading for soil electrical conductivity within the spill clean-up area was 1570 μ S between the gather pit located in the field and the oil pad and the highest reading was 9,700 μ S located within the gather pit located in the field where the soil had been dug out to 6 feet. The company also plans to replace some soil along the tree row to cover up any exposed tree roots to prevent vegetative stress.

This information and the questions were passed onto the NDDoH Spill Reponse Program Manager for additional follow-up.

Date: 8/12/2014 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Company rep sent the NDDoH sample test results and map of sampling points of site. In addition, was informed that Samson has hired a consultant to help with clean-up issues of the site. The consultant is LT Environmental out of Williston, N.D. The consultant will be conducting additional sampling to see what additional cleanup has to occur for the site. The Samson rep also did inform the NDDoH that soil had been backfilled in the dug-out area along the tree row to cover exposed tree roots and prevent any further stress to the trees.

Sample results and information has been entered into the report folder.

Date: 8/13/2014 **Status:** Inspection

Author: Suess, Bill

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Visited site and met with Kent Haugland and Jeff Proberts to discuss additional site investigation. Samson Resources will schedule soil borings to be conducted to delineate the area of impact. Sampson Resources will prepare a work plan and submit it to the NDDoH for approval.

Date: 8/19/2015 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Contacted company rep to see if followup confirmation soil samples had been collected and, if so, the lab results of the samples. Requested sample results be sent to NDDoH so the company can work toward final cleanup and closure of the site.
Additional followup will be needed for this site.

Date: 8/19/2015 **Status:** Inspection

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Additional followup needed for this site.

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 10:00 a.m. Met with landowner on follow-up needs for site. Weather was sunny, 64 degrees, wind 20 mph out of the west. Oil well near site is shut in.

The area of impact has been nearly filled in with clean soil and is covered with tall weeds. Along the north and east sides of the impacted area, a rural water line has been trenched in. The water line runs parallel to the tree row and crosses the tree row along the south side into the farm yard.

Landowner indicated they buy all their drinking water.

About three conifer trees are starting to or have turned brown since the incident. Landowner had a tree specialist from Bottineau Forestry inspect the tree row. Specialist indicated a number of trees will be lost due to the brine impact.

NDDoH inspector also conducted soil conductivity tests of the area.

Background was collected in the cropland located south of the road where the impact occurred.

Background is:

3" = 139uS

6" = 1555uS

9" = 1454uS

12" = 1455uS

15" = 1657uS

18" = 1576uS

Site #1 is located in the rural water line trench area at south end of the tree row.

GPS: N48.93792 W103.40266

3" = 1414uS

6" = 737uS

9" = 1604uS

12" = 1414uS

15" = 1423uS

18" = 1302uS

Site# 2 is located in the tree row south of Caraganas, where the spruce trees are turning brown.

GPS N48.93819 W103.40294

3" = 656uS

6" = 723uS

9" = 1446uS

12" = 1582uS

18" = 66.4uS

Site #3 is located in the field along the tree row directly across from the oil tanks.

GPS: N48.93833 W103.40300

3" = 892uS

6" = 806uS

9" = 571uS

12" = 332uS

18" = 1003uS

Site #4 is located in the middle of the field where the soil had been removed and replaced.

GPS N48.93839 W103.40340

3" = 993uS

6" = 1620uS

9" = 2.54mS

12" = 2.70mS
15" = 2.69mS
18" = 2.60mS

Site #5 is located directly east of well pad fence about 20 feet in weed area.
GPS N 48.93822 W103.40355

3" = 1807uS
6" = 1379uS
9" = 756uS
12" = 2.38mS
15" = 2.89mS
18" = 2.82mS

Will contact the company rep to see if clearance soil samples have been collected and request lab test results. Left site at 12:08 p.m.

Date: 9/15/2015 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Talked to company rep pertaining to clearance sampling for Haugland spill site. Company rep is working on collecting soil samples to ensure the area has been cleaned up properly and, once the soils samples come back within acceptable limits, to determine if the site can be mowed and graded back to original contour of the land. Company rep will also work with the landowner on the impacts to the tree row.

Date: 9/17/2015 **Status:** Inspection

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Awaiting sample results for cleanup of the site.

Date: 2/23/2016 **Status:** Correspondence

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Company rep provided a report to NDDoH pertaining to soil sample results from Sept 25, 2015.

Date: 3/14/2016 **Status:** Inspection

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 11:15 a.m. and left at 12:15 p.m.. Weather was cloudy with wind out of the NW at 20 mph and temp of 47 degrees F. GPS 48.93811, W103.40303. Met with landowner and gave him copies of lab reports. Also explained to him the meaning of the lab results (sample results and depth at which the samples were taken).

There was melt water pooling by the caraganda trees, and chloride strip level tests showed less than 31 parts per million. A number of pine trees in the tree row have started to brown. NDDoH inspector noticed a very visible hole in the ground along the tree row and road to oil pad. This area of impact still needs soil added to the field to bring the site back to original contours. Will contact company rep to determine remediation status. Also talked to landowner about planting a cover crop if the soil grade is corrected this summer.

Additional follow-up on this site will be needed.

Date: 6/27/2016 **Status:** Inspection

Author: Souder, Taylor

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 1530. Area of impact has vegetation growing back. Photos can be found in the report folder.

Date: 8/2/2016 **Status:** Inspection

Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 12:35 p.m. Still need additional soil brought in to fill and level the site to original contours. In addition, noted a number of the evergreens were browning. Additional follow-up needed.